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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,666	02/05/2002	Takashi Hiroi	501.41125X00	4688
20457 7590 05/01/2009 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873				
EXAMINER				
BERMAN, JACK I				
ART UNIT		PAPER NUMBER		
2881				
MAIL DATE		DELIVERY MODE		
05/01/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/062,666

**Applicant(s)**

HIROI ET AL.

**Examiner**

Jack I. Berman

**Art Unit**

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/2/09 and 3/31/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3.5.6.10-16 and 20-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3.5.6.10-16 and 20-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3, 5, 6, 12-16, and 25-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno (U. S. Patent No. 6,047,083) in view of Worster et al. (U. S. Patent No. 5,963,314) for the reasons explained in the previous Office action. Applicant has amended the claims by adding language that states that "the selected one of the stored actual images of the extracted defect candidates of said substrate surface is displayed together with said map format on said screen without revisiting said substrate surface and the designated defect candidate of said substrate surface to produce an actual image of the designated defect candidate of said substrate surface." This language does not add anything to the claims because the claims already contain the limitation that it is a stored image that is displayed along with the wafer map, not a new image.

Claims 10, 11, and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno and Worster et al. as applied to claims 3, 5, 6, 12-16, and 25-37 above, and further in view of Gallarda et al. (U. S. Patent No. 6,539,106) for the reasons explained in the previous Office action.

Applicant's arguments filed March 2, 2009, have been fully considered but they are not persuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicants argue that none of the references teach to display a stored image and a wafer map at the same time. This argument does not address the rejection that was actually made in the previous Office action. Mizuno discloses a method comprising the steps of: irradiating a charged particle on a surface of a substrate on which a pattern is formed (lines 57-65 in column 3); producing an image of said substrate surface by detecting secondary electrons generated from said substrate as a result of the irradiation (line 66 in column 3 through line 8 in column 4); producing a digital image by subjecting the produced image signal to A/D conversion (lines 37-39 in column 6); comparing the digital image with a reference image and extracting a defect candidate (lines 44-53 in column 3); outputting an actual image of the extracted defect candidate and data comprising the location of the defect candidate, via a storage medium (lines 41-43 in column 6); storing said outputted actual image of the extracted defect candidate and data comprising the location of the defect candidate (lines 39-41 in column 6) including data enabling the classification of the defect (lines 53-58 in column 6); and displaying on a screen in a map format the defect candidate location data outputted via either

said storage medium or network (lines 35-40 in column 4). While Mizuno generates both actual images that can be stored and displayed at a later time and a wafer map that shows the locations of the sites corresponding to these images, it is true that Mizuno does not teach to display one of the stored images at the same time that the wafer map is displayed. Worster et al. was cited for the teaching that such a display of a wafer map and images corresponding to locations on the wafer map at the same time is useful. The rejection was based on the *combination* of these references, not either one of the references by itself. The examiner never asserted that the images in the Worster et al. apparatus were stored images. It is irrelevant that Worster et al. displays live images along with the wafer map because the rejection was never based on Worster et al. alone, but the combination of Worster et al. with Mizuno, and Mizuno does teach to display stored images. Worster et al. teaches that by displaying actual images along with a wafer map, a user can develop a better idea of how the defect candidates viewed in the individual images relate in the context of the overall wafer as illustrated by the wafer map. It would therefore have been obvious to a person having ordinary skill in the art to display the stored images and wafer map accumulated by the Mizuno apparatus on the same screen in the manner taught by Worster et al.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack I. Berman whose telephone number is (571) 272-2468. The examiner can normally be reached on Monday-Thursday (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jack I. Berman/  
Primary Examiner, Art Unit 2881

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